

Gala® Kunststoff- und Kautschukmaschinen GmbH

© OCTOBER 2013

NEWS



INNOVATIONS IN GALA FORM™



Long Term Efficiency and Flexibility

GALA Kunststoff- und Kautschukmaschinen GmbH would like to thank all of our valued customers for more than 25 years of support and trust. In the current business environment of the chemical and plastic industries, it is extremely important to have long-term suppliers and partners who continue to be available and committed. The significance of such relationships is often underestimated, especially within the context of today's ever changing economic challenges. So here's from us a very big

Thank You!

The founder of our parent company Gala Industries, Vernon "Buck" Dudley, realized very early how important it is to listen to our customers and focus our efforts on the accomplishment of their individual goals. This 50 year old business strategy still serves as the guiding principle of the Gala team and helps us always remember the most important thing in business: the satisfaction of the customers.

Expansion at Gala Germany to Boost Efficiency and Flexibility

Against the backdrop of increasing sales volumes and a change in the character of the machines manufactured and in view of the continuously strong demand, Gala-Europe embarked on an exciting multi-step expansion plan over the past two years in order to lay the foundation for future growth.

In step one, the available land was doubled, which established the basic condition for the planned expansion.

The assembly building was enlarged and now provides twice the assembly space, and the technical centre (lab facility) was comprehensively modernized and extended to provide ample capabilities for future needs, including the installation of a third twin-screw pelletizing line. This will allow Gala to conduct even more trials, meaning increased availability for product evaluations, material research or just capacity demonstrations for the benefit of Gala's existing and potential new customers.

In step two, a new warehouse building, including reserve capacities for further growth and office space, was completed and became operational in November 2012.

The entire property is now protected by a fence and an automated gate which ensures precise access control. This became important to satisfy increased safety requirements. To ensure quick movement of air freight, new driveways have been designed to allow a smooth flow and handling of the incoming and outgoing goods.



Extended Assembly Hall



Modernized Technical Centre

The new manufacturing and assembly building has been designed to provide state-of-the-art manufacturing infrastructure and equipment to achieve efficient material work flow and processes. This not only increases productivity but also helps ensure short delivery periods and high schedule effectiveness also with the increasing demand for our equipment. Gala is well aware that in today's challenging economic and technological business environment, we must continue to over-deliver and out-perform our competitors if we want to maintain our position as The Leading Underwater Pelletizer Provider in the World.

Michael Eloo
Managing Director
Gala-Europe



Efficient and Flexible Pelletizing Systems

Efficient and Flexible: the Gala EFLEX™ Pelletizing System

Always anticipating the needs of the market, Gala has often identified new trends at an early stage and developed innovative solutions to respond to the resulting requirements. One case in point is the new EFLEX™ System which derives its name from its two main features: it is both **efficient** and **flexible**. The EFLEX™ Pelletizing System was specifically developed for compounders



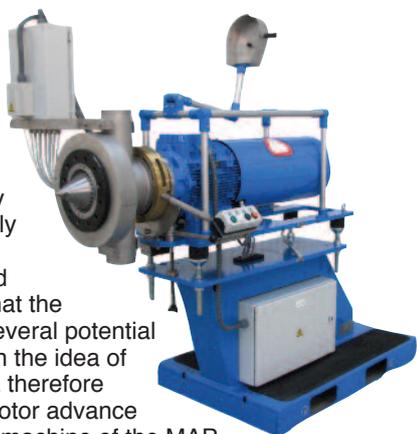
and masterbatch producers, prompted by the continuously changing requirements and ever new materials, formulations and colours of this market segment. One of the special benefits of the new EFLEX™ System is that it is designed to allow even very small product quantities and/or frequent material changes. Producers of small lots now have a

system enabling them to respond to their customers' wishes with utmost flexibility as well as utmost efficiency. The EFLEX™ System can be easily coupled with the corresponding extrusion equipment and permits both small throughput rates and the production of small lots. Within minutes, the EFLEX™ System can be cleaned and/or prepared for the next job. Various filtration options are available to satisfy every demand. Depending on the selected option, it will in most cases no longer be necessary to replace the process water, even in case of drastic changes of product or colour. This not only saves valuable resources and cleaning time but also eliminates the need to reheat the fresh process water which again saves energy costs.

Effective and Efficient: EAC (Electronically Adjustable Cutter) Pelletizer

Automated blade advance, periodical blade grinding during the pellet production as well as blade monitoring are the key features of this advanced pelletizer.

On previous models, automation was implemented with pneumatic or hydraulic actuation controlled by valve positions and PLC controlled blade advance. While the overall function was always ensured, the complexity of the parts working hand in hand could be considered a downside. Failures rarely occurred over the typically long service life of such machines, but the related troubleshooting meant that the maintenance staff had several potential paths to check. Based on the idea of "less means more", Gala therefore integrated the stepper motor advance into the successful base machine of the MAP (Manually Adjustable Pelletizer) and eliminated several of the A5-PAC components. This not only reduced the complexity but also significantly improved the precision of the well proven overall machine concept. The EAC also actively retracts the blade off the



die plate surface and thus minimizes the direct contact of these tools during the process which results in a significant reduction of wear on both the die face and the blades.

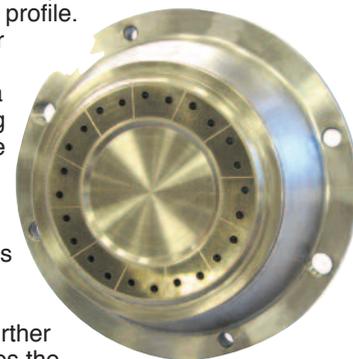
The EAC pelletizer comes with a mechanical seal as a standard. It is available in all of the Gala pelletizer sizes, and of course Gala pelletizers of any model and size can be upgraded to an EAC pelletizer. Just as with the previous models, a blade position indication is available as an option.

In practical operation over the past years, EAC pelletizers have in general, as well as in direct comparison with other pelletizing equipment, demonstrated their ability to achieve a marked reduction of the blade and die plate wear. In some applications, the blade life was more than doubled while the die plates lasted many months longer than before, even in extremely abrasive applications.

Efficient and Innovative: Gala Heat Flux Die Plate

The Gala Heat Flux die plate technology is designed to achieve maximum operating efficiency, flexibility and performance. Thanks to its combination of innovative surface insulation and superb ease of operation, this die plate design has already achieved very positive results. Compared with conventional die plates, Gala Heat Flux die plates feature a lower pressure drop over the same overall hole profile.

This translates either into higher throughputs on the same equipment or alternatively into a more gentle production resulting in less material degradation. Die hole freezing, i.e. the solidification of the polymer in the die hole, is reduced to a minimum, which generally allows significantly lower start-up rates per hole with all compounding machines and materials. This further reduces overall waste and makes the underwater pelletizing process even more attractive for many applications. The specific insulation design and the resulting lower thermal conduction of the Heat Flux die plate allows the pellets to be cut in an elastic, soft phase which reduces the potential of fines generation in comparison with conventional systems. Existing systems with conventional die plates can be upgraded to the Heat Flux die plate technology with minimal changes. With the Heat Flux design, a high temperature sealant is no longer needed during installation, which makes it more operator friendly and almost maintenance free. Gala Heat Flux die plates can be provided with all of our field-proven surface materials in the layer thickness that Gala customers know from their conventional die plates.



Interchangeability is the Key: For material applications that do not require the high-end Heat Flux die plates, Gala now offers an interchangeable package with its new "NHF" (Non Heat Flux) die plate concept, in addition to the known standard versions. This new design allows users of Gala pelletizing equipment to quickly and inexpensively switch between Heat Flux and standard hole profiles and geometries and benefit from the advantages of both, lower heat losses and the elimination of silicone for sealing.



Innovative, Effective and Efficient: Gala Water Filtration Options

Especially to meet the continuously changing requirements of compounders and masterbatch producers regarding materials, formulations and colours, the modern MB 500 BF 2 tempered water systems with **integrated band filter** were optimized so that all fines that might be generated during the cutting and drying process are safely removed from the water. As a consequence, it will in most cases no longer be necessary to replace the process water, even in case of drastic changes of product or colour. This not only saves valuable resources and cleaning time but also eliminates the need to reheat the fresh process water which again saves energy costs. Also thanks to the special drive control engineering, which only activates the filter band advance when the filter is clogged, these systems feature an extremely low total energy consumption.



As an upgrade for users of the standard Gala tempered water systems and as an option to allow a continuous water filtration, the CBF (Continuous Band Filtration) has become established in the marketplace. With this solution, a driven endless band filter replaces the sieve drawer in the Gala tempered water system tank. The fines generated during the pelletizing and/or drying process are continuously and automatically removed from the water circulation and are conveyed by a belt into a collecting bin. As a result, the full flow of the entire process water is cleaned automatically and without requiring any operator intervention. Also this system was designed with efficiency in mind so that it only requires a few hundred watts. Compared with other full-flow filtration systems such as e.g. a curved screen fines removal sieve, you not only save the installation place for such a system but also the energy consumption of the additional pumps, which are fully eliminated with the CBF.

Efficient and Safe: Gala Melt Conditioning Device (MCD) for Melt Handling and Scrap Size Reduction

Polymer diverted from the process during start-up typically drops on the shop floor to form a large patty. Such patties can be a safety concern for the operators and take a long time to cool before they can be removed. Also the weight of the patty can

present operational challenges and require special procedures. Thanks to the development of the new Gala Melt Conditioning Device (MCD), the size and weight of such patties can now be reduced and controlled consistently, allowing an easier handling of the start-up waste and a safer working environment.

The MCD is an individually operated cutting device that is positioned underneath the polymer diverter valve of an extruder in order to slice the diverting purge material into smaller consistent portions, allowing the operator to drop these smaller pieces onto a conveyor or into a scrap bin. The cutting frequency can be set by the operator. The slices created with the MCD can be easily handled, are small in size and weight, bear less of a risk for operators as far as thermal and fumes emissions go and can be more readily recycled than the large patties.



Flexible in Shaping: Gala Hollow Pellet Technology

With the development of the Gala Hollow Pellet Technology, users now have a completely new option for pellet shapes. Apart from the familiar spherical, elliptic or cylindrical pellets, this technology also allows other shapes and even hollow pellets. Gala has already successfully implemented one project in connection with a renowned manufacturer, and the new pellet shape will undoubtedly find many other fascinating applications that are now awaiting sampling.



Efficient on a Large Scale: Gala Launches New High-Capacity Pelletizer G 20

At the K 2013 show, Gala will present a new pelletizer size under the trade name G 20. This new machine has multiple design features especially developed and engineered for pelletizing production rates in excess of 20 t/h and will be first displayed to the public at the K 2013 in Düsseldorf.

Gala technology is protected, in whole or in part, by one or more issued U.S. and foreign patents, with other domestic and foreign patents pending. Patents include U.S. Patent Nos. 5,624,688; 5,638,606; 6,138,375; 6,237,244; 6,332,765; 6,551,087; 6,739,457; 6,793,473; 6,807,748; 6,824,371; 6,925,741; 7,024,794; 7,033,152; 7,157,032; 7,171,762; 7,172,397; 7,267,540; 7,318,719; 7,393,484; 7,402,034; 7,421,802; 7,524,179; 7,771,635; 8,007,701; 8,011,912; 8,080,196; 8,187,512; 8,205,350; 8,220,177; 8,303,871; 8,361,364; 8,365,430; 8,366,428; 8,414,283; 8,444,923; and related foreign patents; All logos, trademarks, and service marks (hereafter referred to as "Trademarks") displayed herein whether or not appearing in large print or with or without the trademark symbol are registered and unregistered Trademarks of Gala or of third parties. Gala Trademarks are protected by one or more registered U.S. and foreign trademarks, with other domestic and foreign trademarks pending. All original works of authorship displayed herein are protected under U.S. and other copyright laws. Gala technology may also be protected as trade secrets, mask works or other proprietary rights.

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